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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,366	02/11/2004	John D. Heightley	UMI-350	3206

25235 7590 10/19/2005

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EXAMINER	
COX, CASSANDRA F	

ART UNIT	PAPER NUMBER
2816	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/776,366	HEIGHTLEY ET AL.	
	Examiner	Art Unit	
	Cassandra Cox	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19 and 21-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24* is/are allowed.

6)☒ Claim(s) *1-7, 25* is/are rejected.

7)☒ Claim(s) *8-19 and 21-23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-7, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Fiscus (U.S. Patent No. 6628154).

In reference to claim 1, Fiscus discloses in Figure 3 an analog delay locked loop comprising: an analog delay line (114) having an associated minimum delay (any delay line would have an associated minimum and maximum delay); an input (102) for receiving a reference clock signal (REF_CLK); an output (104) for providing a delayed clock signal (CLK_OUT); and means (110, 112, 116, 118, 120, 122) for controlling the delay through the analog delay line (114) including first and second charge capacitors (the two capacitors found in block 122) such that the delay is initialized at or near the minimum delay.

In reference to claim 2 Fiscus discloses in Figure 3 that the delay through the analog delay line (114) only increases initially, independent of the phase relationship between the reference and delayed clock signals. The same applies to claims 4 and 25.

In reference to claim 3 Fiscus discloses in Figure 3 that the means for controlling the delay through the analog delay line (114) comprises a phase detector (110, 112) for

receiving the reference and delayed clock signals and for providing output control signals (UPF, DNF, UPC, DNC).

In reference to claim 6, Fiscus discloses in Figure 3 that the delay through the analog delay line (114) is increased (UP) or decreased (DN) after the rising edge of the delayed clock signal is ahead of the rising edge of the reference clock signal by a minimum time (this is seen to be part of the normal operation of a delay locked loop). The same applies to claim 5 (to the extent that the claim is understood by the examiner), wherein the limitation of the claim applies to instances when the delay through the delay line (114) is increased.

In reference to claim 7, Fiscus discloses in Figure 3 that the phase detector (112) further comprises means for generating a first indication (UPC) that the delay is to be increased.

Allowable Subject Matter

2. Claim 24 is allowed.

3. Claims 8-19 and 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: Claims 8-17 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 1B in which the means for controlling the delay through the analog delay line (12) further comprises a fast/slow latch circuit (22B) coupled to the phase detector (18B) in combination with the rest of the limitations of the

base claims and any intervening claims. Claims 18-19 and 21 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 1B in which the circuit further comprises a reset circuit (24) in combination with the rest of the limitations of the base claims and any intervening claims. Claims 22-23 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 1B in which the means for controlling the delay through the analog delay line (12) includes a fast/slow latch (22B) having three output control signals (FTOS, FSTL, SLWL) in combination with the rest of the limitations of the base claims and any intervening claims.

5. The following is an examiner's statement of reasons for allowance: Claim 24 is allowed because the closest prior art of record fails to disclose a circuit as shown in Figure 1B in which the means for analog delay locked loop (20) includes a fast/slow latch (22B) having three output control signals (FTOS, FSTL, SLWL) in combination with the rest of the limitations of the base claims and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 571-272-

1741. The examiner can normally be reached on Monday-Thursday from 7:00 AM to 4:30 PM and on alternate Fridays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CC

October 17, 2005

TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800